ADVISORY COMMITTEE ON PUBLIC SAFETY AND SOUR GAS EVALUATION OF EUB'S IMPLEMENTATION PROGRESS TO OCTOBER 2003

1 INTRODUCTION

The Alberta Energy and Utilities Board (EUB) formed the Advisory Committee on Public Safety and Sour Gas (the Advisory Committee or PSSG) in January 2000 to review and make recommendations respecting the sour gas regulatory system as it relates to public health and safety. The Advisory Committee included representation from a broad spectrum of stakeholder groups.

In December 2000, the Advisory Committee issued a *Findings and Recommendations Final Report* that described the Advisory Committee and its mandate, briefly outlined the process the Advisory Committee used to conduct its work, and provided a set of 87 final recommendations to the EUB.

2 IMPLEMENTATION

Upon receipt of the *Findings and Recommendations Final Report,* the EUB accepted all 87 recommendations, and established the Public Safety Implementation Team (PSIT) to develop a plan of action and co-ordinate on-going recommendation implementation. The EUB then grouped the PSSG recommendations into five categories; Health Effects and Sour Gas Research, Sour Gas Development Planning and Approval, Sour Gas Operations, Emergency Preparedness, and Information, Communication and Consultation.

In April 2001, the PSIT published *Public Safety and Sour Gas Implementation Plan,* proposing to start work on 50 of the 87 recommendations in the first year of a multiyear program. During the first two years of the program, the PSIT issued quarterly reports as well as two *Annual Progress Reports*: the first in April 2002 and the second in April 2003. After this time, the quarterly reporting protocol was replaced by semi-annual reporting. The first semi-annual report on implementation progress was issued in October 2003 and is titled *Public Safety and Sour Gas Semi-Annual Progress Report 2003.*

3 EVALUATION OF EUB'S IMPLEMENTATION PROGRESS

Following publication of the first *Annual Progress Report* in April 2002, the Advisory Committee has convened annually to discuss and evaluate implementation progress on the 87 recommendations. Its observations and subsequent comments to the EUB are contained in two reports titled *Advisory Committee on Public Safety and Sour Gas Evaluation of EUB's Implementation Progress* (issued July 2002), and *Advisory*

Committee on Public Safety and Sour Gas Evaluation of EUB's Implementation Progress to April 2003 (issued July 2003). These reports are available on the EUB's website at www.eub.gov.ab.ca.

Following publication of the EUB's *Public Safety and Sour Gas Semi-Annual Progress Report October 2003*, the Advisory Committee again convened to discuss and evaluate implementation progress. The product of this mid-year evaluation is contained in this report.

Members of the Advisory Committee continue to individually follow the implementation progress. As representatives of diverse stakeholder groups, many Advisory Committee members have been involved in the implementation work through feedback, consultation and direct project participation.

3.1 Overall Evaluation

The ongoing commitment of staff tasked with implementing the recommendations of the Advisory Committee was again evident in presentations made to the Committee by EUB and Alberta Health and Wellness (AH&W) staff. Staff continuity throughout the PSSG implementation endeavor to date was observed by the Advisory Committee, and it accredits much of the uninterrupted progress, steady focus and work quality to this asset. A large component of Advisory Committee afternoon discussions centered on the good progress made to date, and the recognition of the personal commitment and hard work demonstrated by staff involved in the implementation work. The Advisory Committee believes this dedication to be of utmost importance in the time ahead, as implementation work progresses through some of the PSSG's most challenging recommendations. The Advisory Committee remarked on the exceptional implementation achievements by the EUB's Field Surveillance team.

The Advisory Committee notes that implementation work undertaken is showing positive results on many fronts, and that the spirit of true public consultation is demonstrated by the EUB's commitment to implementing the PSSG recommendation package. The Advisory Committee's afternoon meeting included discussion of many positive 'spin-offs' from the implementation work in the form of communication and projects both directly and indirectly linked to the PSSG initiative. One example cited was the EUB's increased public communication in a recent pre-hearing situation, while another example described the much-improved communications between various government agencies. The qualities of 'respect' and improved 'trust' were also highlighted in Advisory Committee discussion of perceived public opinion regarding EUB's consultation and communication activities.

The Advisory Committee is pleased to see an increased focus on the intent of each PSSG recommendation by staff involved in implementation. Notwithstanding, the Advisory Committee reminds both itself, EUB and AH&W staff to frequently check benchmarks in implementation progress so that work efforts don't become sidetracked in details, thereby losing sight of a recommendation's core purpose.

In the Advisory Committee's last report, comments were made with respect to broadening the scope of some PSSG recommendations to include work on non-sour gas issues. This was raised to draw attention to possible delays caused by broadening the scope of some projects to include non-sour gas issues. It was not the Advisory Committee intention to discourage congruence with non-sour gas matters where obvious benefits to 'piggy-backing' work can be realized with little or no impediment on work progress in sour gas matters. The Advisory Committee suggests that where broadening the scope of a PSSG recommendation to include non-sour gas matters is being considered, stakeholders should be consulted. The Advisory Committee does recognize that some sour gas recommendations may apply equally well elsewhere - such as in environmentally sensitive areas.

The Advisory Committee is pleased to see an increasingly integrated approach in managing implementation of the remaining recommendations, as many facets of these recommendations continue to dovetail together. With this inter-relationship comes the risk of work duplication and multiple demands upon stakeholders (including other jurisdictions). The Advisory Committee encourages the continued work coordination efforts in order to minimize these risks. It also believes that increased stakeholder involvement could substantively help many implementation processes now underway, and urges the implementation teams to continue to utilize this valuable resource.

The Advisory Committee would like to see the technical rationale behind the work/outcome on key technical projects. Presently, this is of particular concern in the health and dispersion modeling areas, where the technical output and outcome is crucial to the timing of many remaining recommendations.

In order to gauge the effectiveness of the PSSG project - as to how it has affected the public - the Advisory Committee re-iterates the need for performance measures. The Advisory Committee observes that sophisticated measurement systems may not be required, as the measurement need may be satisfied by stakeholder input. An example where this approach may be of assistance is following adoption of new industry requirements/best practices. After a specified time period, industry would be consulted with to determine if the new requirements/best practices are having serious time and cost impacts, which would then be weighed against the contribution to public safety.

In morning presentations by EUB staff, the PSIT described their criteria for determining when a PSSG recommendation is complete, as when project actions move from an 'implementation' phase to an 'operational' phase - a time where processes are being measured and goals are being met. The Advisory Committee was asked for clarification as to when certain 'broad and far-reaching' recommendations could be called complete. The Advisory Committee agrees that when a recommendation reaches its operational phase, it should be called complete. For any 'broad and far-reaching' recommendations where this transition may be less clear, the Advisory Committee believes it is of utmost importance to focus on the recommendation's objective. If actions have been implemented to achieve that objective, the recommendation should be considered complete, even though those actions may be added to or otherwise changed over time.

The Advisory Committee remains available to EUB staff for consultation on the matter of proclaiming any recommendation as complete.

3.2 Specific Comments and Concerns

This report is intended for both an overall evaluation of the implementation work to date and for constructive critique of any areas the Advisory Committee believes would benefit from such comment. The level of detail in the following critical scrutiny is provided with the sole objective of assisting in the ongoing implementation progress, and is not intended to leave the reader with an overall negative impression.

For convenience, the relevant recommendations are also included. It should be noted that the complete text of some recommendations is not shown. The complete text may be found in the *Public Safety and Sour Gas Findings and Recommendations Final Report December 2000.* (This report is available at the EUB's Calgary Office and Field Centers, and on its website at www.eub.gov.ab.ca.).

3.2.1 Health Effects and Sour Gas Research

General Comments:

The Advisory Committee is very pleased with advances made in the health area, and appreciates the scarcity of resources needed for this work. However, many recommendations are dependant upon the outcomes of this crucial work and the results are most important to the public.

Specific Comments:

Recommendations 9 and 59

9 *The EUB work with Alberta Health and Wellness, regional health authorities, Alberta Environment, Alberta Human Resources, industry, and other stakeholders to ensure that comprehensive health effects information (qualitative and quantitative) is developed, as soon as practical due to its urgency.*

59 *The EUB work with Alberta Health and Wellness, regional health authorities, and other stakeholders to develop clear requirements and evacuation criteria to address the hazard of SO_2 as a result of ignition.*

Comments and Concerns:

The Advisory Committee is pleased to see progress in the health effects information for H_2S and SO_2 and awaits release of the updated health effects tables.

The Advisory Committee notes that the results of AH&W's health effects literature review of H_2S was provided to the EUB in January 2003, and that revised H_2S emergency

evacuation guidelines including concentrations and time elements are also before the EUB. The Advisory Committee would like to have an opportunity for peer review of the EUB's decision regarding this data should the EUB determine that different data be selected for public safety purposes. This review, conducted before the EUB's decision becomes final policy, is not intended to examine the health information provided to the EUB by AH&W, but to review the policy decisions made after the information was considered. This matter is discussed again in section 5 of this report titled 'Future Evaluation Reports From The Advisory Committee'.

3.2.2 Sour Gas Development Planning and Approval

Specific Comments:

Recommendation 5

5 *The immediate formation of a task force of senior decision makers that would investigate the possibility of improving coordination between subsurface and surface planning and development.*

Comments and Concerns:

The Advisory Committee recognizes the complexity of this particular recommendation and is pleased to see work plans now advancing after a slow start. It was noted (from a stakeholder point of view) that discussions on this recommendation have been productive. The Advisory Committee believes that although stakeholders were consulted at an earlier stage of the implementation planning, there is currently no plan to consult with them again before moving ahead in planning. To have a truly multi-stakeholder approach in implementing this recommendation, the Advisory Committee suggests that stakeholders be provided with results from the first round of consultations, and given an opportunity to review and comment on the implementation plans before they're finalized and taken to senior people. This consultation is particularly important prior to selection of the pilot area, and for input on the terms of reference for the pilot work.

Recommendations 17, 18 and 19

17 *The EUB, in cooperation with stakeholders, develop a framework and methodology for standardizing dispersion modelling and probabilistic risk assessment that will provide clarity to the industry and the public.*

18 *The EUB require that users of sour gas hazard and probabilistic risk assessment techniques clearly state their methods and assumptions.*

19 *The EUB be responsible for reviewing and updating its standard models and methods regularly.*

Comments and concerns:

With regard to the dispersion modeling, the Advisory Committee believes the targeted review work needs to be completed. The Advisory Committee suggests that a broader targeted review, including regional health authorities as well as industry, is necessary to retest the model prior to completion of the protocol, and that publication of the draft protocol - for stakeholder input - should wait until this work is complete. The Advisory Committee suggests that the EUB consider getting an independent assessment of the model strengths and weaknesses by another regulatory agency.

The Advisory Committee also believes there should be broader peer review on the policy relevant conclusions drawn by the EUB from the health information provided by AH&W. The review of policy should occur before the dispersion modeling work is used in other recommendations. This review is limited in that it would not focus on the already peer-reviewed documentation as provided by AH&W.

Recommendation 20

20 *The EUB consolidate, to the degree possible, all of its regulatory requirements related to sour gas, and develop a single, concise document that summarizes all of its sour gas-related requirements and widely distribute the summary document.*

Comments and concerns:

Although work on this recommendation is not planned to begin until March 2004, there was discussion on it both during morning presentations to the Advisory Committee and during the afternoon discussions. The Advisory Committee wishes to clarify the intent of this recommendation by re-emphasizing some key words used to convey it's meaning. They are "consolidate, to the degree possible" and "single, concise document that summarizes". The second part of this recommendation intended to describe the need for a concise summary, of all EUB requirements where sour gas is concerned (providing the reader with the **key elements** of each requirement **all in one place**), along with the title of the document or regulation number where more expansive detail can be found.

3.2.3 Sour Gas Operations

General Comments:

The Advisory Committee is pleased that work on recommendation 53 – a review of the implications of setbacks on the ability to develop property – is scheduled to move ahead shortly. (Note that recommendation 53 is grouped together with recommendation 52 in the EUB's report on implementation)

Specific Comments:

Recommendation 8

8 *Revisions to EUB guides to encourage operators to consider methods for reducing the visual and psychological impacts of sour gas facilities near people.*

Comments and Concerns:

The Advisory Committee re-emphasizes the intent of this recommendation, which is to "revise EUB guides to encourage operators to consider methods...". The Advisory Committee is concerned that the planned actions, such as developing industry guidelines and recommended practices, appear to go beyond what may be required to address this recommendation, and suggests that minor revisions to current EUB Guides would address this recommendation.

3.2.4 Emergency Preparedness

Specific Comments:

Recommendations 55 and 56

55 *The EUB assess the capability of an operator to effectively implement an ERP at the time of application, and develop specific requirements to cover ERP validation through mandatory testing and exercises.*

56 *The EUB audit existing ERPs on a more frequent basis to ensure that*

- *the operator has the capability to implement its ERP,*
- *plans are updated according to requirements regarding frequency of updates,*
- *updating takes place immediately upon change of operatorship and prior to a new operator physically operating the facility, and*
- *adequate communication of updates with EPZ residents and emergency responders takes place.*

Comments and concerns:

The Advisory Committee observes that in areas of the province with extensive sour gas development and multiple operators, ERP testing may place considerable strain on the resources of local authorities. In these areas, the Advisory Committee urges the EUB and local licensees/operators to coordinate ERP testing in a manner that recognizes these constraints.

3.2.5 Information, Communication and Consultation

General Comments:

The Advisory Committee notes that when public consultation is conducted in areas of heavily concentrated sour gas development, both the public and local authorities can be quite overwhelmed by information disseminated to them, and information requests they receive. Public consultation conducted under these circumstances may yield some unfavorable results and risks losing the intended purpose of the consultation activity. Similar consultation, in less heavily developed sour gas areas, may be less overwhelming and perhaps more easily 'digested'. The Advisory Committee recognizes that developing province wide public consultation requirements/best practices with this type of regional disparity continues to be a challenge. Perhaps, factors such as the extent of earlier sour gas development and communications should be considered when setting requirements.

Specific Comments:

Recommendation 77

77 *The EUB field centres identify key operator contacts, telephone numbers, and locations of facilities and provide this information to the public in order to enable them to more efficiently contact appropriate industry officials regarding a development in their area, if they require information or have concerns. This information would need to be updated regularly and the public advised of changes.*

Comments and Concerns:

The Advisory Committee reminds the EUB that for communication purposes, the public needs to be able to contact the operator of a sour gas well or facility and in some instances, the operator is not the licensee. Additionally, there are public members who will, for a variety of reasons, be unable to access information from the EUB database. The Advisory Committee suggests that all EUB centers be prepared to supply members of the public with the necessary contact information upon request, and that provincial libraries may need to be involved in order to assist members of the public who wish to access EUB information on library computers, and who require such assistance.

Recommendation 83

83. *The EUB consider forming an Aboriginal advisory committee or a series of regional advisory committees to better ensure that Aboriginal issues are recognized. Consideration should also be given to ad hoc committees to deal with specific issues.*

Comments and Concerns:

The Advisory Committee notes considerable progress in the implementation of recommendations specific to Aboriginal communities. It is aware that the recommended Aboriginal Advisory Committee (recommendation 83) has been formed, and that a proposed 'terms of reference' is being considered. The PSSG Advisory Committee is pleased to see this progress, as it believes such a committee can play an important role over time. It encourages strong commitment and co-operation from all sides to ensure the very important Aboriginal Advisory Committee becomes a reality and functions effectively.

4 CONTENT, FREQUENCY AND UTILITY OF REPORTING BY THE EUB

The Advisory Committee finds the EUB's new semi-annual report (replacing the quarterly reporting protocol) very useful, particularly the 'Project Status' tables. It would be helpful to the Advisory Committee if the tables also showed where project completion dates have changed (providing both the old and new dates).

The Advisory Committee recognizes that the EUB's current 'Annual Report' on implementation progress is a time consuming endeavor that may now yield returns incommensurate to its resource expenditure, due to implementation work now being well advanced. Therefore, the Advisory Committee suggests that the EUB consider issuing a report only when there is something major to convey. These reports would provide detail on active areas only – areas where major work has occurred since the last report - with all other work listed in the 'progress status' tables. Should these reports become widely separated in time (more than 6 months apart), publication of the 'progress status' tables (with a covering letter) would satisfy the Advisory Committee's monitoring needs.

5 FUTURE EVALUATION REPORTS FROM THE ADVISORY COMMITTEE

The Advisory Committee observes that since detailed work on many of the recommendations is now significantly advanced, future Advisory Committee meetings should be determined on the basis of significant key developments in implementation work.

The Advisory Committee agreed to next meet after the proposed requirements, for calculating emergency planning zones including the dispersion model, has incorporated the changes suggested to it by the stakeholders, but before the results are used to implement related 'downstream' recommendations. At that time, the Advisory Committee would like to meet with the PSIT and involved experts, and receive a presentation of the modeling. At the same time, the Advisory Committee would like a presentation as to how the health effects information was incorporated into the modeling. The Advisory Committee plans to review how this information was used by the EUB to develop requirements, not review the information itself (this work was directed by other scientific groups).

The Advisory Committee's next meeting will likely occur in the March to May 2004 time period. The Advisory Committee Chair will stay in touch with the EUB regarding progress of the dispersion modeling, and a meeting date will be set when more is known.

December 30, 2003